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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/625,812

07/26/2000

Timothy J. Van Hook

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08/06/2007

DLA PIPER US LLP

1999 AVENUE OF THE STARS

SUITE 400

LOS ANGELES, CA 90067-6023

EXAMINER

HSU, JONI

ART UNIT

PAPER NUMBER

2628

MAIL DATE

DELIVERY MODE

08/06/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Advisory Action Before the Filing of an Appeal Brief	Application No. 09/625,812	Applicant(s) VAN HOOK, TIMOTHY J.	
	Examiner Joni Hsu	Art Unit 2628	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 30 July 2007 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 4 months from the mailing date of the final rejection.
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
(b) ☐ They raise the issue of new matter (see NOTE below);
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
The status of the claim(s) is (or will be) as follows:
Claim(s) allowed: 25-31.
Claim(s) objected to: _____.
Claim(s) rejected: 1-18, 23 and 33.
Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☐ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: _____
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). _____
13. ☐ Other: _____.


ULKA CHAUHAN
SUPERVISORY PATENT EXAMINER

With regard to Claim 1, Applicant argues that Joffe (US006330584B1) teaches a seven stage pipeline wherein the task select stage selects an “active task”. There is no mention of “seven tasks” in the cited portions. In fact, Joffe instead teaches that at most four tasks may be active at the same time. As such, it appears that Joffe teaches that the pipeline has a depth greater than (seven) the plurality of programs (at most four active programs), and does not teach a pipeline having a depth less than or equal to the plurality of programs (page 9).

In reply, the Examiner points out that Joffe teaches that each task has a plurality of instructions. For example, one task has five instructions (Col. 10, lines 42-48). According to the disclosure of this application, a “program” is an operation performed on data (page 8, line 5). Each instruction of Joffe performs an operation on data (Col. 1, lines 65-67; Col. 2, lines 41-42), and therefore the instructions are considered to be programs. Since four tasks may be active at the same time, and each task may contain five instructions, there may be twenty programs (instructions). Since the pipeline is a seven stage pipeline, the pipeline has a depth less than (seven) the plurality of programs (twenty active instructions).

Applicant argues that the cited portions of Joffe do not make mention of any number of tasks that are interleaved (page 10).

In reply, the Examiner points out that according to the disclosure of this application, when one instruction has dependency based on execution of a previous instruction, that second instruction is not provided to the execution pipeline until completion of the first instruction. In the meantime, instructions from other programs are still being executed while the first instruction is executing, and these instructions that are still being executed are referred to as “interleaved” instructions (page 8, paragraph 2). Joffe teaches that if a task attempts to access an unavailable

resource, the task is suspended, and the processor can execute other tasks in the time slot that could otherwise be used by the suspended task. When the resource becomes available, the suspended task is resumed, and the instruction accessing the resource is re-executed (Col. 2, lines 29-34). Therefore, the other tasks that are executed during the time the task is suspended are considered to be interleaved tasks. Since the tasks are interleaved, and each task has a plurality of instructions, this means that the instructions are interleaved. Instructions are considered to be programs, as discussed above, and therefore the programs are interleaved.

With regard to Claim 14, Applicant argues that Applicant claims insuring one instruction is completed before beginning execution of another instruction based on interleaved instructions without inserting a no-op command into the pipeline. The cited portion of Krishna (US006161173A) states the opposite since Krishna teaches inserting a no-op operation that is executed (page 11).

In reply, the Examiner points out that the disclosure of this application describes inserting no-ops into the instruction stream or retarding the launching of new programs until the first program finishes (page 17, lines 8-11). Therefore, when no no-op is inserted, that means that the first instruction is completed and execution of the second instruction can begin. Krishna teaches the local scheduling circuitry stops the main scheduler from issuing a selected operation if the latency of another operation would create a conflict with the main scheduler issuing the selected operation (Col. 2, lines 56-60). Therefore, it is ensured that the first instruction is completed before beginning execution of the second instruction. The information in each entry describes either no-op or an associated operation which is to be executed (Col. 5, lines 36-38). Therefore, when a no-op is inserted, this means that the operation is not ready to be executed. When an

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associated operation which is to be executed is inserted, there is no no-op inserted, this means that the associated operation is ready to be executed, meaning that the first instruction is completed and it is now okay to execute the associated operation. Therefore, Krishna teaches no no-op is inserted for the purpose of ensuring that the first instruction is completed before beginning execution of the second instruction.

With regard to Claim 33, Applicant argues that the cited portion of Joffe does not refer to whether a plurality of identified programs have been completed, but to the contrary, refers to the fact that a resource is not provided to a task until after every other task sharing the resource has finished accessing the resource. The task may still be uncompleted but the resource is allocated as disclosed (pages 11-12).

In reply, the Examiner points out that when the tasks have finished accessing the resource, this means that the tasks are completed.